

Wednesday, December 07, 2016 11:08:54 A

Page 1

16-12-14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Wednesday, December 07, 2016 11:08:54 A

Page 2

0.02

Qty	Qty	Number	Stamp
7	Ø		DAS 49 9-89 16/12/14

7 JAN 09 2017 DAS 13 9-89

7x SP17-01-17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : ☐																					

Wednesday, December 07, 2016 11:08:54 A

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mf
17-1-20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER :			

Picklist Print

Wednesday, December 07, 2016 11:08:57 AM

Page 1

Work Order ID: 154275

154275

Parent Item: 644.4123

644 4123

Parent Item Name: EC145 Fwd Crosstube Bushing

Start Date: 12/23/2016

Required Date: 12/23/2016

Start Qty: 7.00

Required Qty: 7.00

Comments: IPP REV:A NEW ISSUE 16-12-07 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R0.625		Purchased	No				f	27.3600		2.210526			DAS
M6061T6R0 625									**			16-12-14	32
6061-T6 Round Bar .625"													9-89

Location

Loc Qty

Loc Code

MAT005

24

m135779

24

MAT012

3.36

m135377

3.36

3.594'

2.813'

0.781'

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DART AEROSPACE LTD	Work Order:	154275
Description: EC145 Ford Cross tube Bushing	Part Number:	644.4123
Inspection Dwg: 644 4100 Rev: F2		Page 1 of 1

INSPECTION SHEET

[illegible]

Measured by: 32 9-89	Checked by: 49 9-89	QC Inspector:
Date: 16-12-14	Date: 16/12/14	Date:

Engineering Approval: (If necessary)		Date:	
--	--	--------------	--

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 04489

SHEET 1 OF 1

DWG NO. 644,4100

REV: F

PREPARED BY:

J. BECKER

DATE: 04/08/14

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: PIVOT STEP ASSY

APPROVED BY:

ENGR

MFG

QC

EFF:

NEXT ORDER

TRANSACTION
A-ADD
R-REVISE

CODES (TC)
C-CREATE
D-DELETE

REASON: UPDATE NOTE 4, FINISH SPECIFICATION.

NOTES

1. IDENTIFY ALL PARTS IN ACCORDANCE WITH MPP-120
2. MATERIAL: 2024-T3 ALUMINUM
3. MATERIAL: 6061-T6 ALUMINUM
4. FINISH IAW MPP-172 SECTION 2.1, SECTION 3.1, SECTION 4.1, SECTION 5.2.
5. MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 1/4" GASKET PUNCH
6. MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 5/16" GASKET PUNCH
7. DIMENSION VALUE HAS FINISH COATING OF 6-10 MIL (.006-.010) TAKEN INTO CONSIDERATION
8. ADD ADDITIONAL WASHER UNDERNEATH CASTLE NUTS IF NECESSARY.
9. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2, COLOR BLACK.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 154275 MJS
10-12-07

SHEET 1, NOTES IS:

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04286

SHEET 1 OF 1

DWG NO. 644.4100

REV: F

PREPARED BY J. SOTO

DATE: 12/04/2013

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: PIVOT STEP ASSY

APPROVED BY:

ENGR

[Signature]

MFG

[Signature]

QC

[Signature]

EFF.

NEXT ORDER

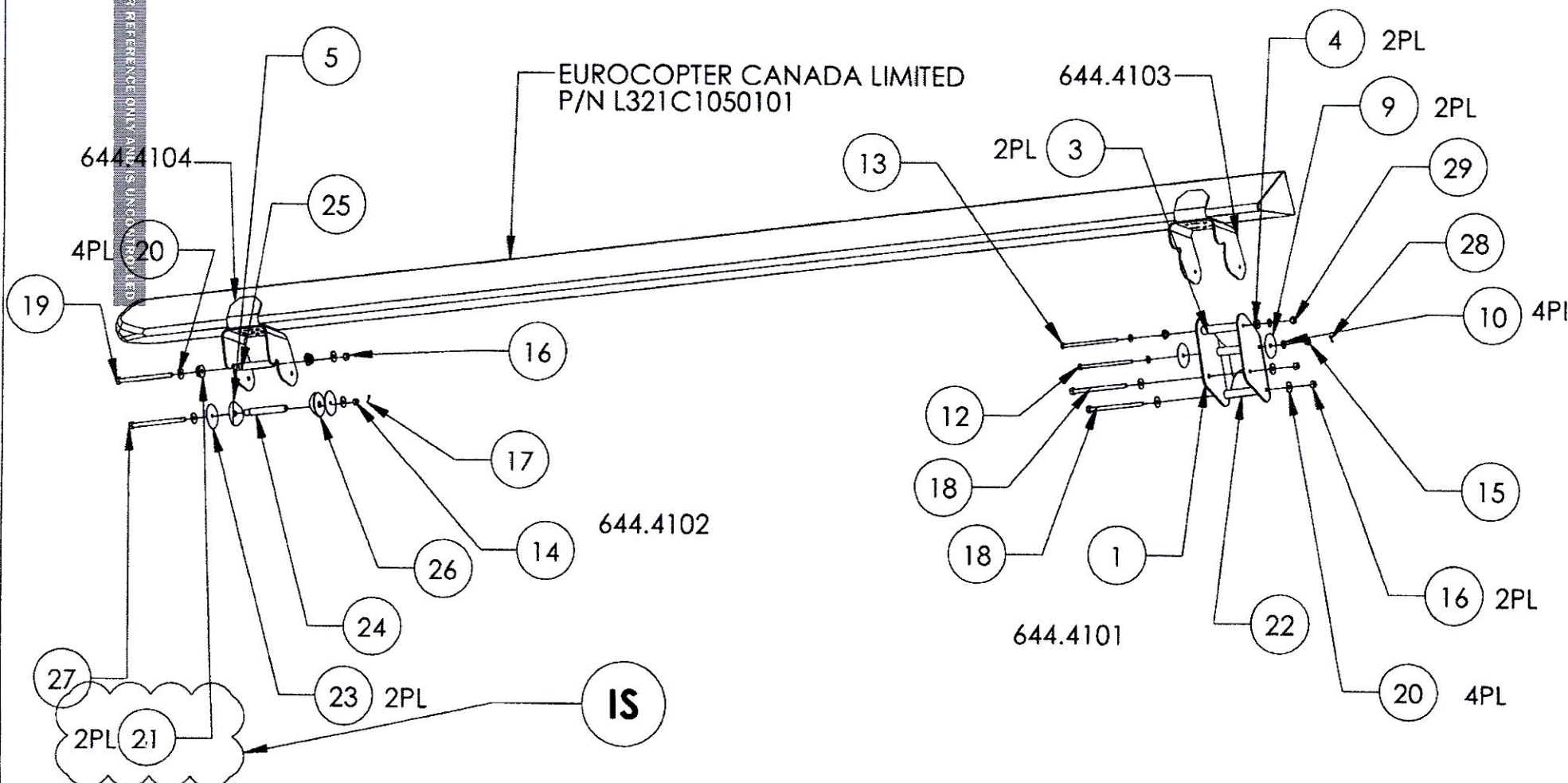
TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: REVISED F/N CALL OUT FROM 22 TO 21

ECR:

13-151

SHEET 1, ZONE D1 IS:



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

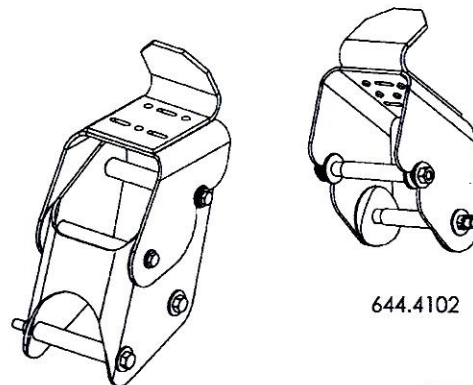
DER REVIEW REQUIRED

☐ YES ☒ NO

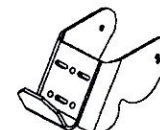
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NOTES:

1. IDENTIFY ALL PARTS IN ACCORDANCE WITH MPP-120
- 2 MATERIAL: 2024-T3 ALUMINUM
- 3 MATERIAL: 6061-T6 ALUMINUM
- 4 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2, COLOR BLACK; PRETREAT PR-148 ADHESION PROMOTER, PRIME WITH DESOTO 515X349 IAW BMS 10-79 TYPE III CLASS A GRADE A, POLYURETHANE PAINT CARDINAL 6409-RD03-S WITH CATALYST 340HP.
- 5 MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 1/4" GASKET PUNCH
- 6 MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 5/16" GASKET PUNCH
- 7 DIMENSION VALUE HAS FINISH COATING OF 6-10 MIL (.006-.010) TAKEN INTO CONSIDERATION
8. ADD ADDITIONAL WASHER UNDERNEATH CASTLE NUTS IF NECESSARY.
- 9 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2, COLOR BLACK.



644.4102

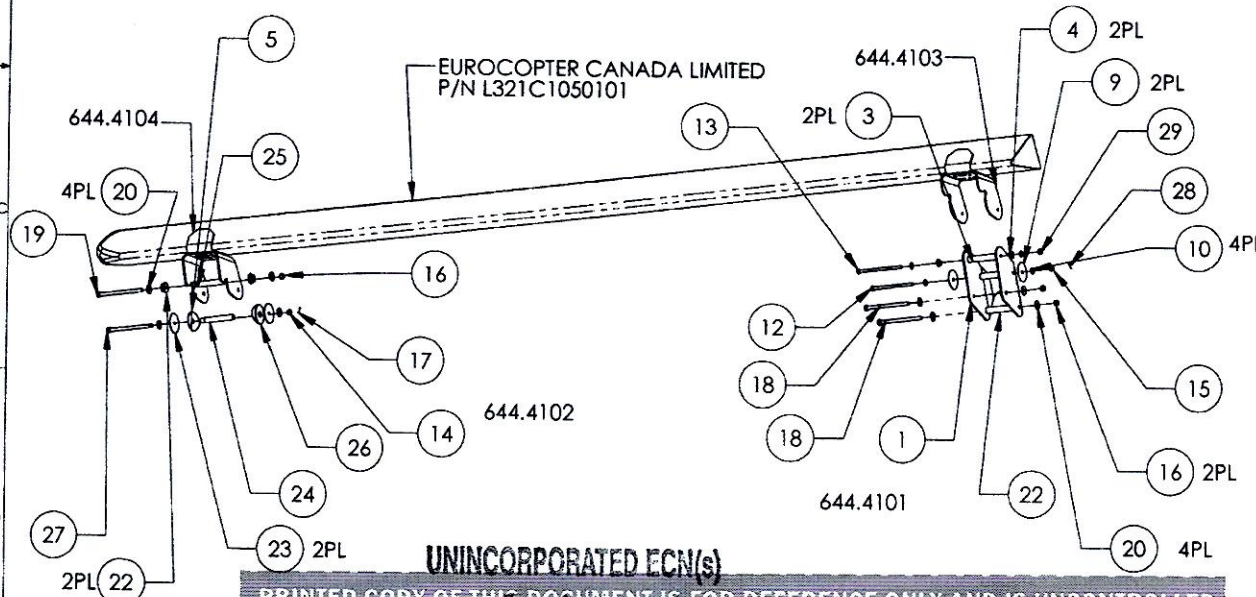


644.4103



644.4104

644.4101



REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECH 01310 01322 01331 & 01337	11-29-05	S. JOSEPH
B	INCORPORATED ECH 01310 01418 01796 & 01838	05-21-07	P. BRAYO
C	INCORPORATED ECH 01310 02206 02207	12-14-10	P. BRAYO
D	INCORPORATED ECH 03111 03113 03208 & 03240	12-10-12	P. BRAYO
E	INCORPORATED ECH 03041	06-19-13	P. BRAYO
F	INCORPORATED ECH 04004	7-29-13	P. BRAYO

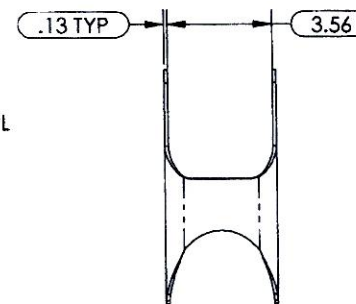
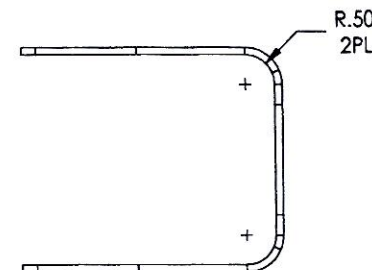
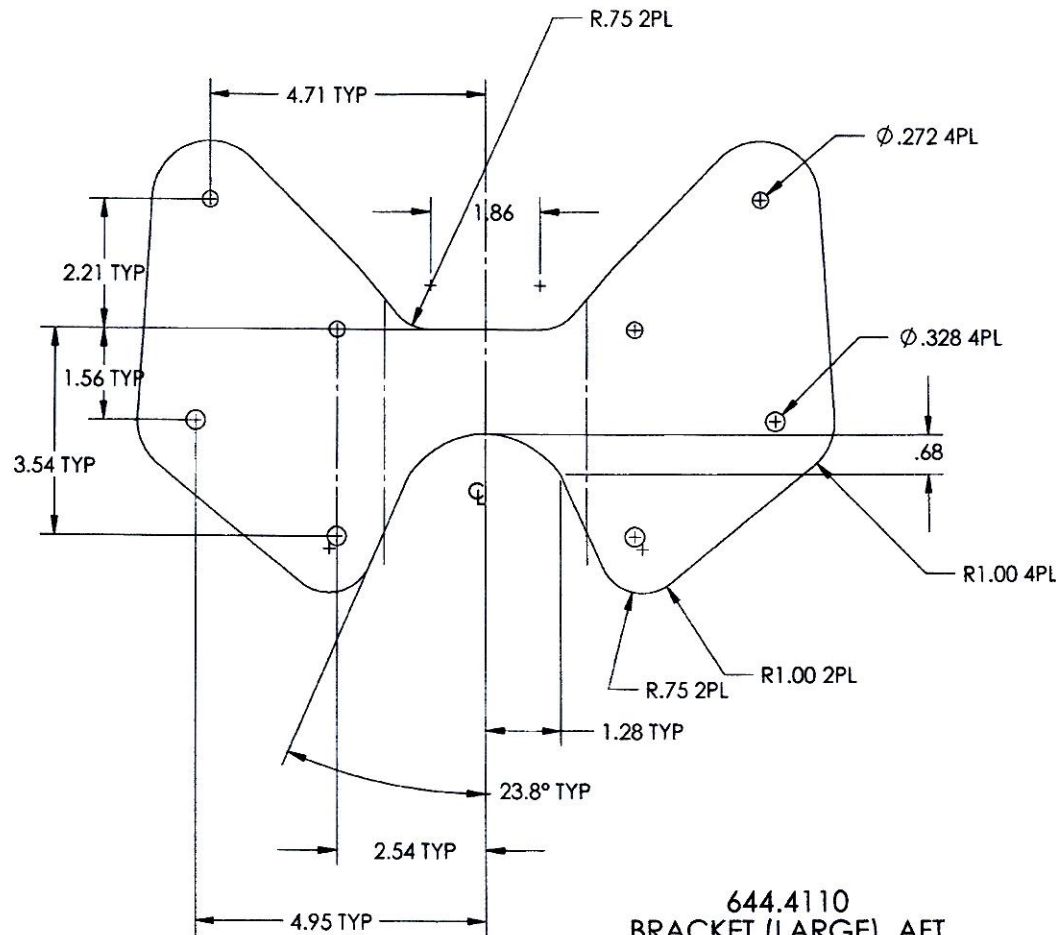
QTY	PART #	DESCRIPTION	MATL	SPEC.
1	29	601.3273	LOCKNUT FULL	MS21044N4
1	28	601.2640	COTTER PIN	MS24665-132
1	27	601.2328	BOLT, HEX	AN5-45
1	26	644.4124	WASHER, PIVOT	△△△
1	25	644.4123	FWD CROSSTUBE BUSHING	△△△
1	24	644.4122	FWD CROSSTUBE BUSHING	△△△
2	23	644.4121	WASHER, NYLON	△△△
1	22	644.4120	SPACER, CROSS-TUBE	△△△
2	21	644.4119	SPACER, FWD STOP	△△△
4	20	601.2110	WASHER, FLAT THICK	MS21044N5
1	19	601.2250	BOLT, HEX	AN5-50
2	18	601.2249	BOLT, HEX	AN5-43A
1	17	601.3315	COTTER PIN	MS24665-210
1	16	601.3272	LOCKNUT FULL	MS21044N5
1	15	601.1435	NUT, HEX CASTLE FULL	AN310-4
1	14	601.3270	NUT, HEX CASTLE FULL	AN310-5
1	13	601.3407	BOLT, HEX	AN4-47A
1	12	601.2434	BOLT, HEX	AN4-45
6	11	601.2326	RIVET, COUNTERSUNK	MS20426AD5-8
4	10	601.0863	WASHER, THICK	MS21044N5
2	9	644.4118	WASHER, NYLON	△△△
1	8	644.4117	BRACKET, FWD PIVOT	△△△
1	7	644.4116	BRACKET (SMALL), FWD	△△△
1	6	644.4115	BRACKET (SMALL), AFT	△△△
1	5	644.4114	WASHER, PIVOT	△△△
2	4	644.4113	SPACER, STOP	△△△
2	3	644.4112	SPACER	△△△
1	2	644.4111	BRACKET, AFT PIVOT	△△△
1	1	644.4110	BRACKET (LARGE), AFT	△△△

QTY	PART #	DESCRIPTION	MATL	SPEC.
1	644.4104	FWD BRACKET ASSY		
1	644.4103	AFT BRACKET ASSY		
1	644.4102	PIVOT STEP ASSY		
1	644.4101	PIVOT STEP ASSY		

ORIGINAL DATE 08-01-05	CHECKED S. JOSEPH
DRAWN BY D. FARRITT	APPROVAL S. JOSEPH 08-21-05
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 ANGLES ±.5°	

SET B	CAGE CODE 07MA26	DWG. NO. 644.4100	REV F
SCALE: NONE		SHEET 1 OF 14	

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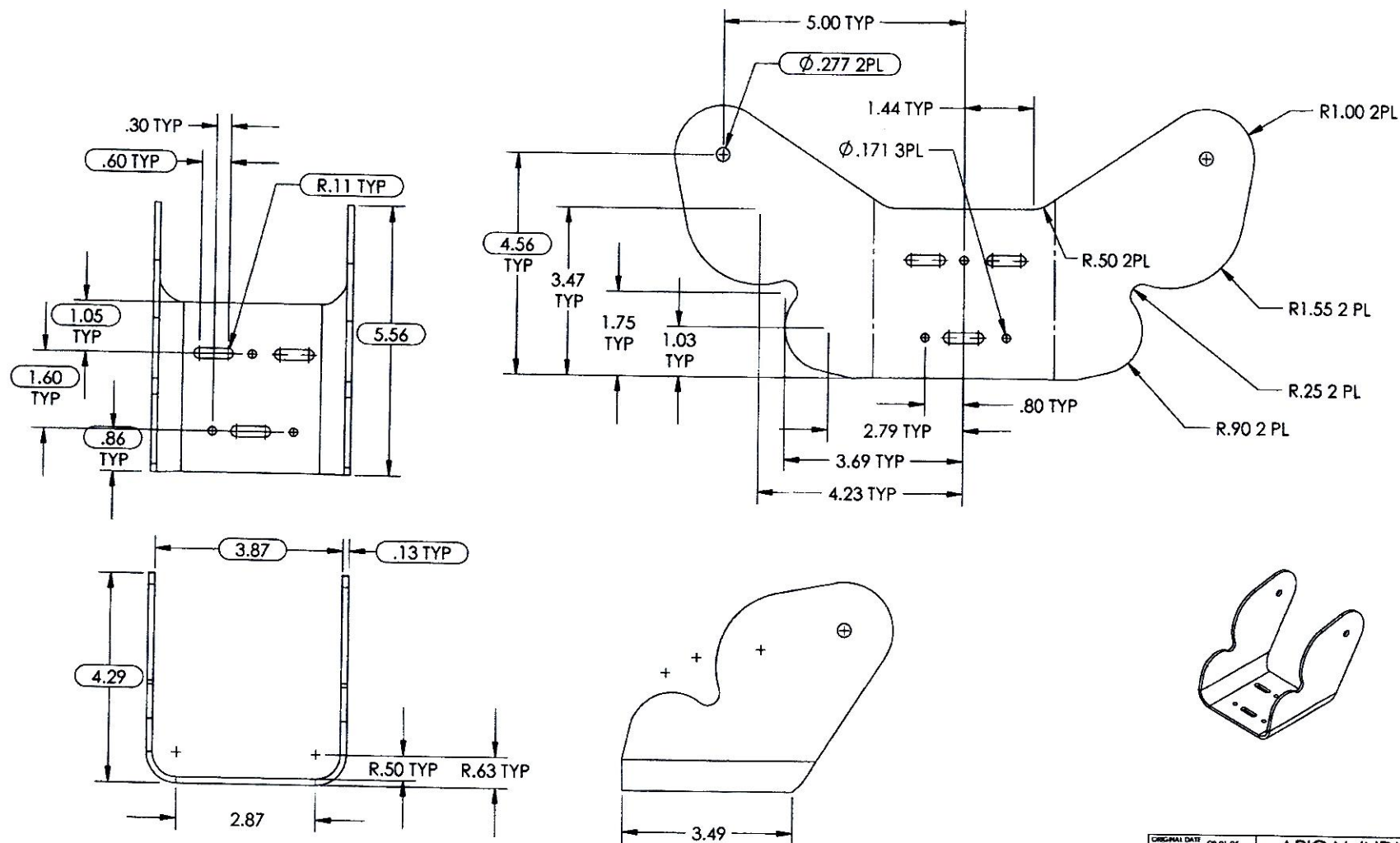


644.4110
BRACKET (LARGE), AFT

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ORIGINAL DATE 08-01-05	APICAL INDUSTRIES
DRAWN BY J. JOSEPH	2608 TEMPLE HEIGHTS DR.
CHECKED BY J. JOSEPH	OCEANSIDE, CA. 92056-3512 (760)724-5300
DRAWING APPROVAL J. JOSEPH 08-27-05	PIVOT STEP ASSY
CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.005 3 PLACE DECIMALS ±.010 ANGLES ±.5°	SEE CAGE CODE DWG NO. 644.4100
SCALE NONE	SHEET 2 OF 16

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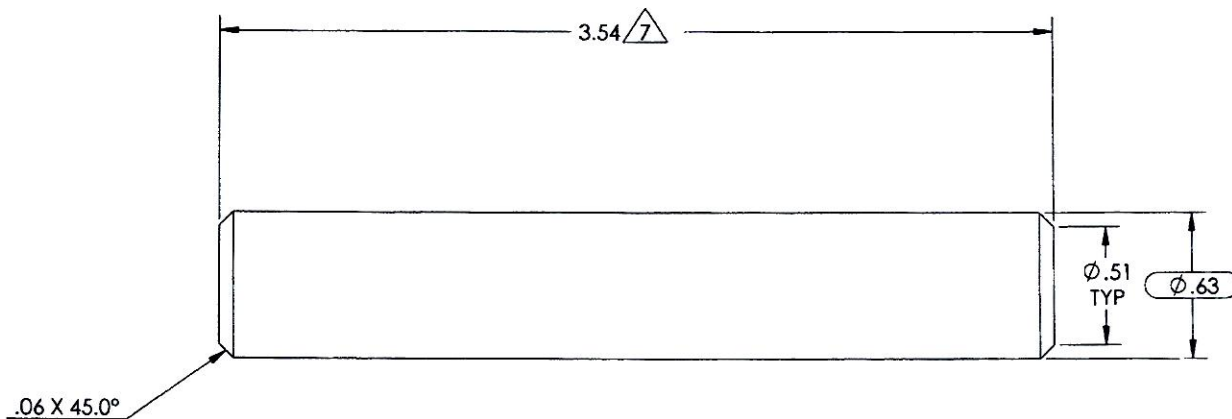


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644.4111
BRACKET, AFT PIVOT

ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: J. MURPHY		2408 TEMPLE HEIGHTS DR.	
CHECKED BY: J. JOSEPH		OCEANSIDE, CA 92056-3512 (760)724-5300	
DRAWING APPROVAL: J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES 1° ± 2°		SHEET: 3 OF 16	REV: F

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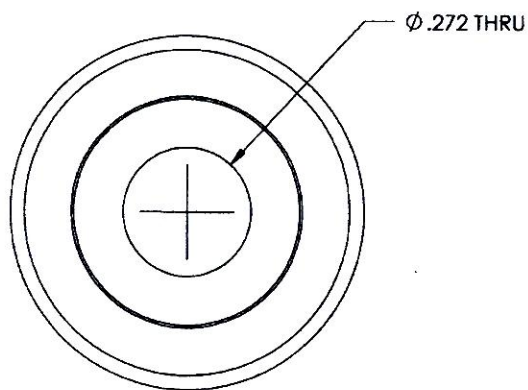
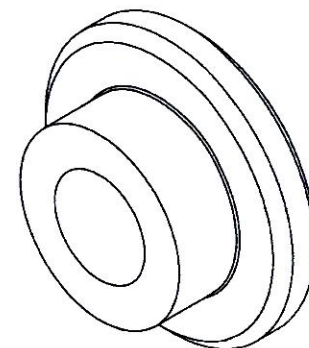
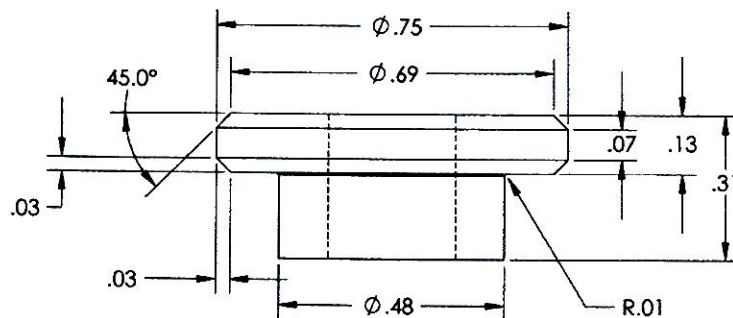


644.4112
SPACER

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ORIGINAL DATE 05-01-05	APICAL INDUSTRIES	
DRAWN BY D. PARKS	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY S. JOSEPH	PIVOT STEP ASSY	
DRAWING APPROVAL S. JOSEPH 08-27-05	SERIAL CODE B 07426	DWG NO 644.4100
CONTRACT NO.	SCALE NONE	SHEET 4 OF 16
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .003 ANGLES ± .5°		

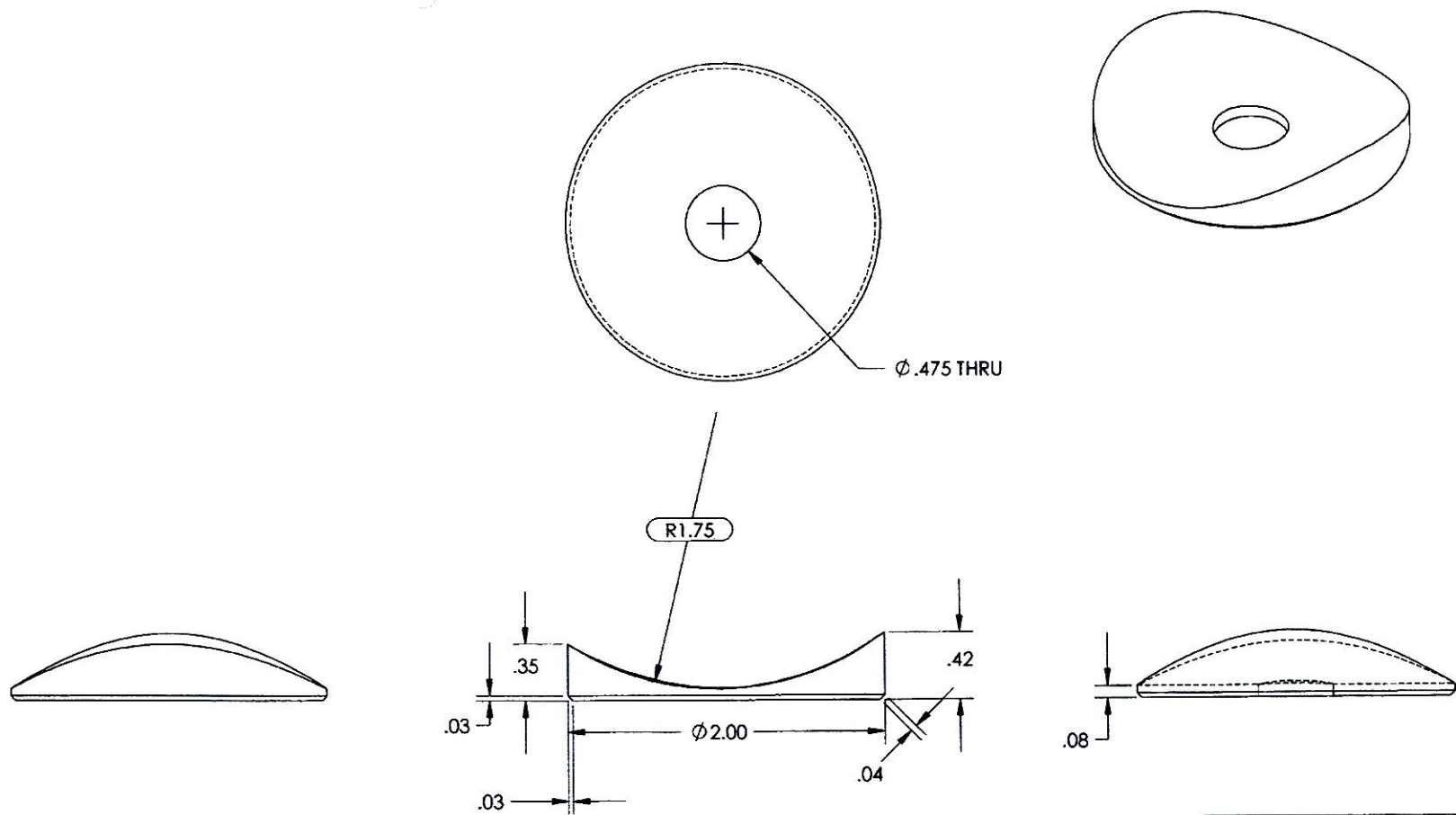
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644.4100
SPACER, STOP

ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL J. JOSEPH 08-21-05		OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO.		PIVOT STEP ASSY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .02$ 3 PLACE DECIMALS $\pm .010$ ANGLES $\pm .5^\circ$		REV. B	REV. F
SCALE NONE		SHEET 5 OF 16	

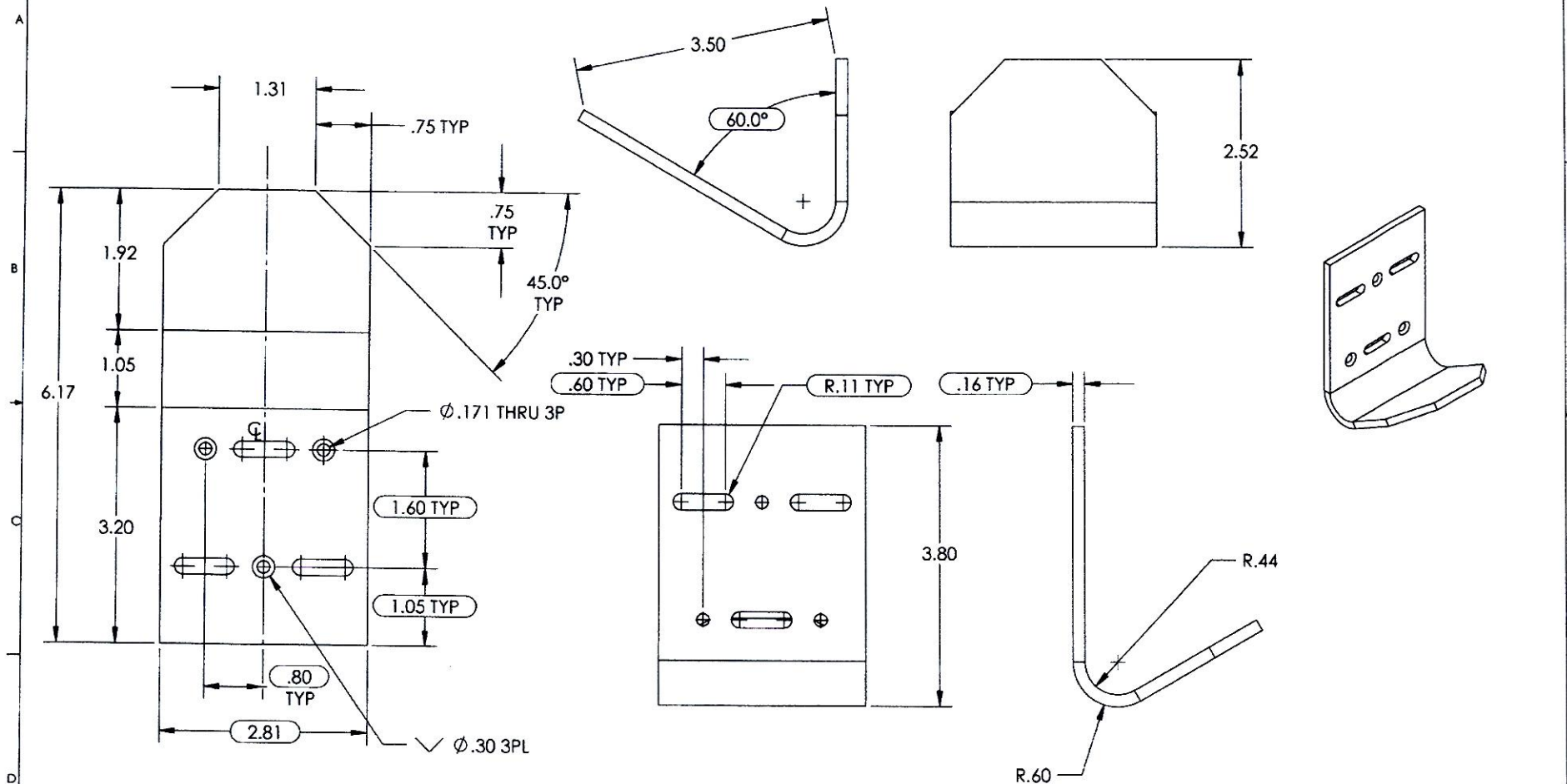
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ORIGINAL DATE: 08-01-05	APICAL INDUSTRIES		
DRAWN BY: D. PARSONS	2608 TEMPLE HEIGHTS DR.		
CHECKED BY: S. JOSEPH	OCEANSIDE, CA. 92056-3512 (760)724-5300		
DRAWING APPROVAL: S. JOSEPH 08-27-05	PIVOT STEP ASSY		
CONTRACT NO.	SHEET: 6 OF 16	DWG. NO: 644.4100	REV: F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS: 1.00 3 PLACE DECIMALS: 1.00 ANGLES: 1.0	SCALE: NONE		

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BRACKET (SMALL) AFT

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FLAT VIEW

ORIGINAL DATE 08-01-05	APICAL INDUSTRIES		
DRAWN BY D. FRANK	2608 TEMPLE HEIGHT'S DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300		
CHECKED BY J. JOSEPH	PIVOT STEP ASSY		
DRAWING APPROVAL J. JOSEPH 08-29-05			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .02 3 PLACE DECIMALS ± .01 ANGLES ± .5°	SHEET 8	CAGE CODE 07M26	DWG. NO. 644.4100
	SCALE NONE		REV. F
			SHEET 7 OF 16

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644.4116
BRACKET (SMALL) FWD

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ORIGINAL DATE: 08-01-05
DRAWN BY: D. PARROTT
CHECKED BY: S. JOSEPH
DRAWING APPROVAL: S. JOSEPH
CONTRACT NO.:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS $\pm .010$
3 PLACE DECIMALS $\pm .005$
ANGLES $\pm 1^\circ$

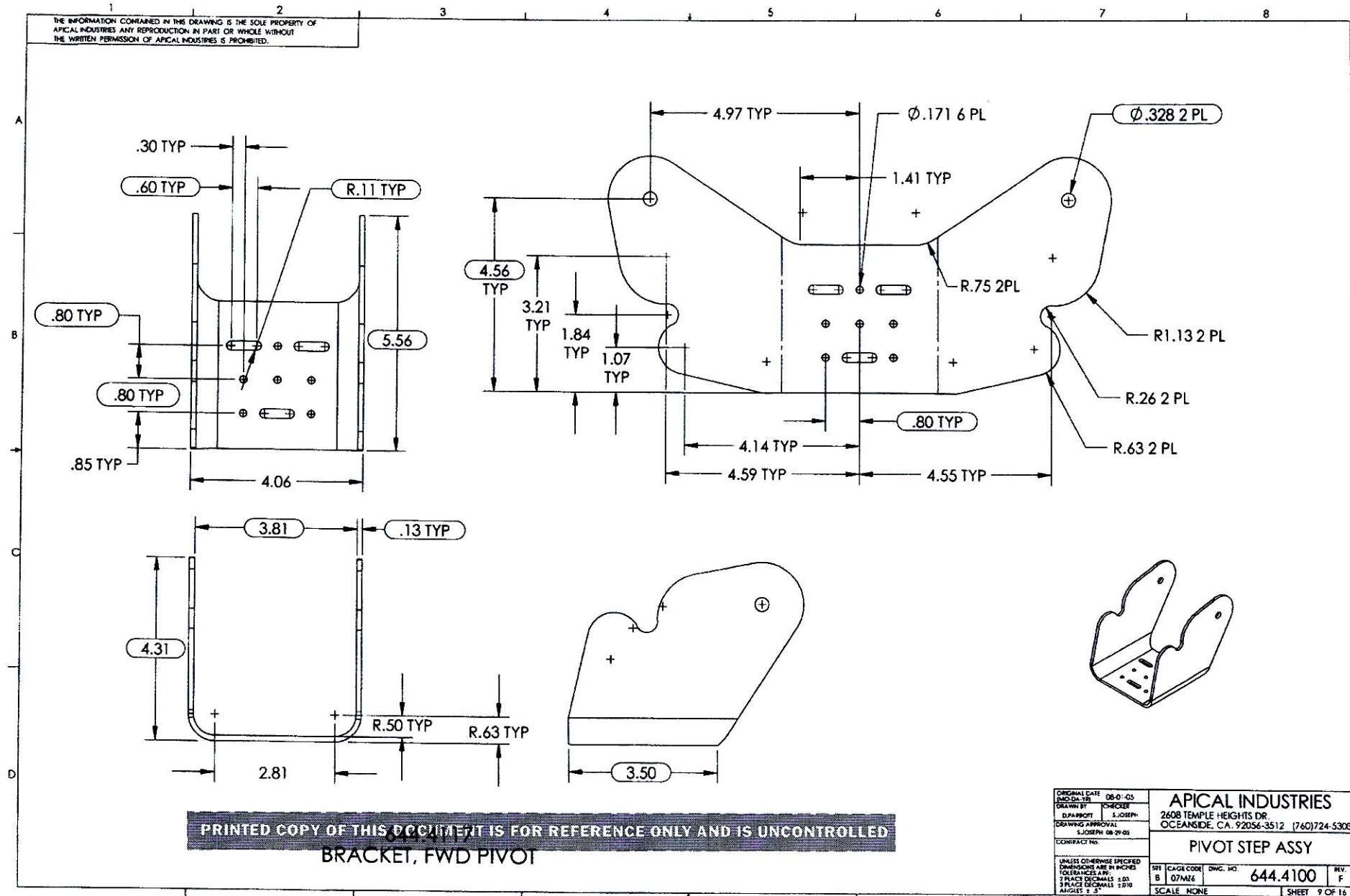
APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5312
PIVOT STEP ASSY
SHEET 8 OF 8

BRACKET (SMALL), FWD

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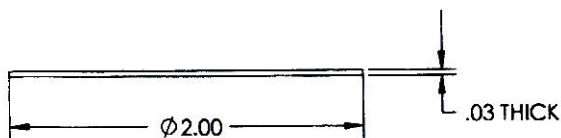
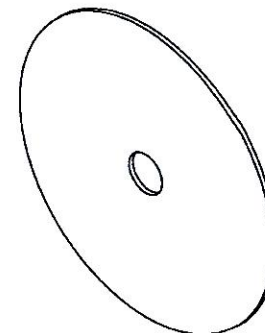
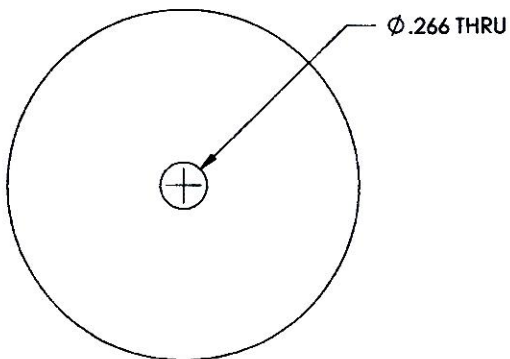
ORIGINAL DATE 08-01-05	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
DRAWN BY D.PANICOT		CHECKED BY S. JOSEPH	
DRAWING APPROVAL S. JOSEPH 08-24-05			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .010 ANGLES ± .2°			
SIZE B	CAGE CODE 07M76	DWG. NO 644.4100	REV. F
NAME NONE			SHEET 8 OF 16

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ORIGINAL DATE: 06-01-05		APICAL INDUSTRIES	
DRAWN BY: J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL: J. JOSEPH 08-29-05		OCEANSIDE, CA 92056-3512 (760)724-5309	
CONTRACT NO.		PIVOT STEP ASSY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SRT: B	CAGE CODE: 07M26
		DWG. NO.: 644.4100	REV. F
		SCALE: NONE	SHEET: 9 OF 16

1 2 3 4 5 6 7 8
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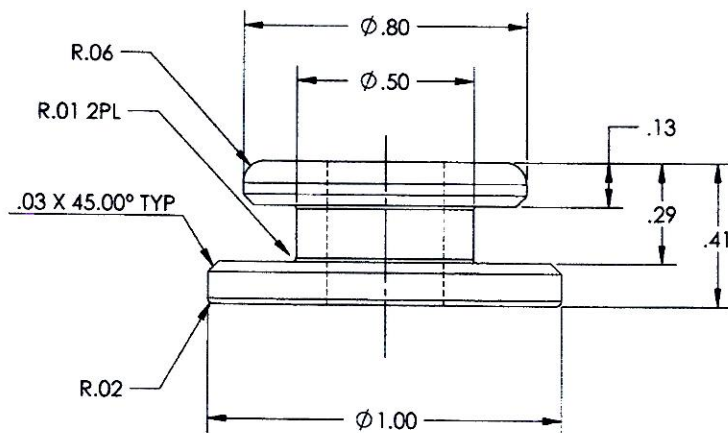
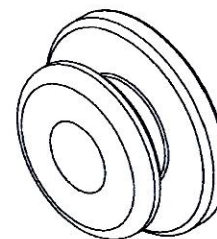
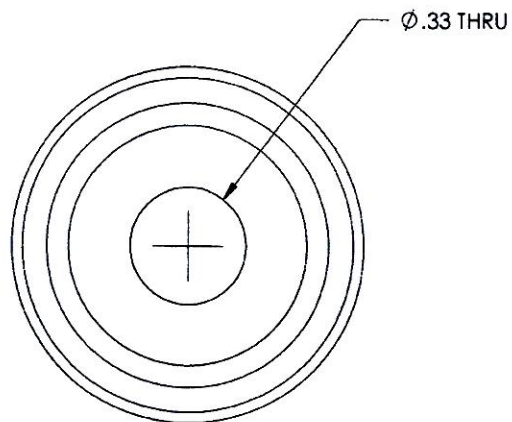


644.4118
WASHER, NYLON

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ORIGINAL DATE 08-01-05	APICAL INDUSTRIES	
DRAWN BY D.J. HOPKINS	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY S. JOSEPH	PIVOT STEP ASSY	
DRAWING APPROVAL S. JOSEPH 08-29-05		
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.00 3 PLACE DECIMALS ±.010 ANGLES ±.5°	SIZE B	CAGE CODE 07M26
	DWG. NO. 644.4100	REV. F
	SCALE NONE	SHEET 10 OF 16

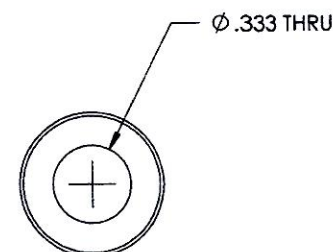
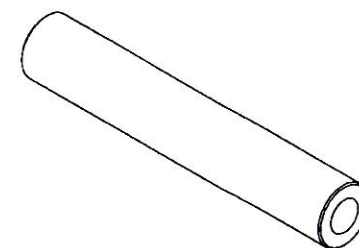
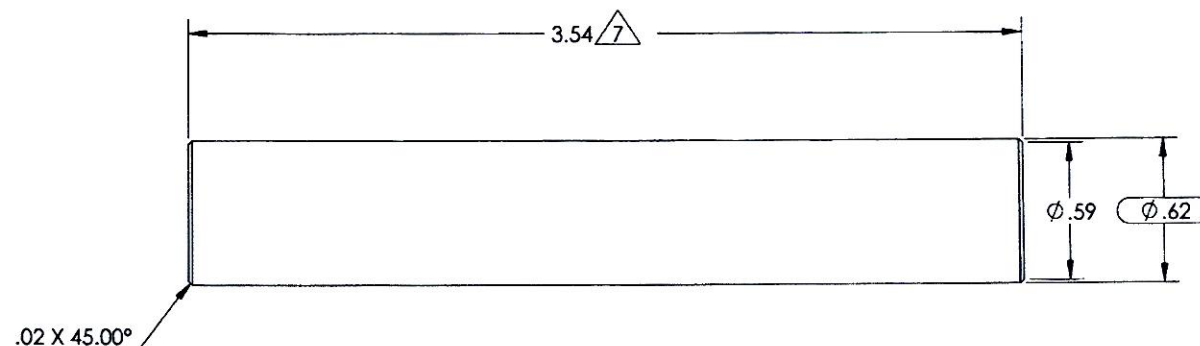
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644.4119
SPACER, FWD STOP
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ORIGINAL DATE 08-01-05 MOD DATE DRAWN BY CECIL DPA RDT J JOSEPH DRAWING APPROVAL J JOSEPH 08-29-05 CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.003 ANGLES ±.2°	PIVOT STEP ASSY		
SHEET B	CAGE CODE 07N26	DWG. NO. 644.4100	REV. F
SCALE NONE	SHEET 11 OF 16		

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644.4120
SPACER, CROSS-TUBE

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ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: J. JOSEPH		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTEXT OF NO.		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .010$ ANGLES $\pm .5^\circ$		SHEET: B	REV: F
		CAGE CODE: 07MZ6	DWG. NO.: 644.4100
		SHEET 12 OF 16	

1 2 3 4 5 6 7 8

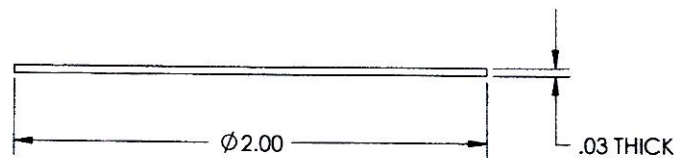
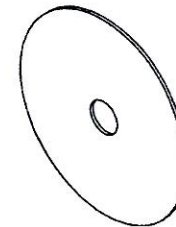
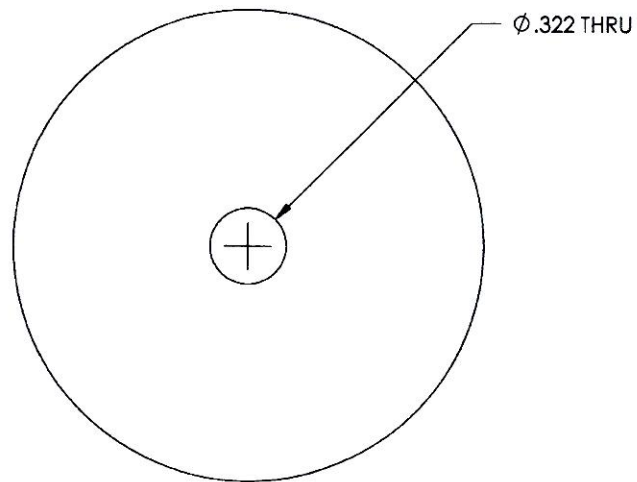
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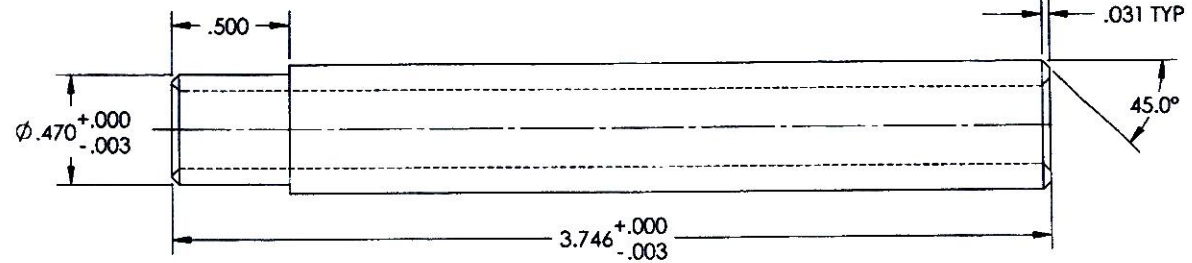
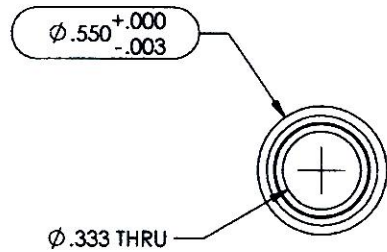


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WASHER, NYLON

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ORIGINAL DATE 08-01-05	APICAL INDUSTRIES		
DRAWN BY D. PARROTT	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300		
CHECKED BY S. JOSEPH	PIVOT STEP ASSY		
DRAWING APPROVAL S. JOSEPH 08-29-05	REV. F		
CONTRACT NO.	SCALE NONE		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.005 3 PLACE DECIMALS ±.010 ANGLES ±.5°	SHEET B	CAGE CODE 079426	DWG. NO. 644.4100
SHEET 13 OF 16			

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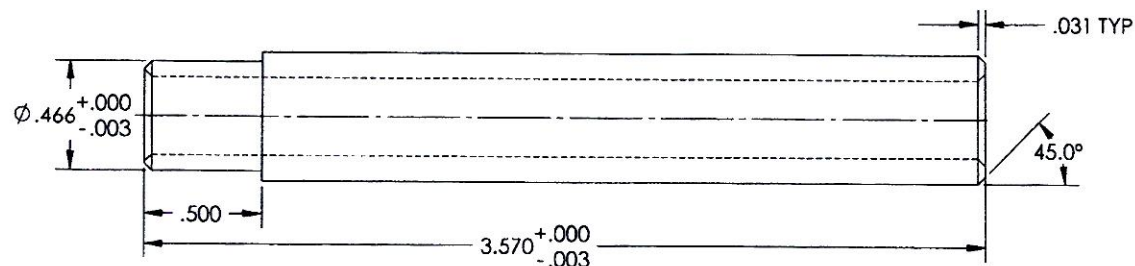
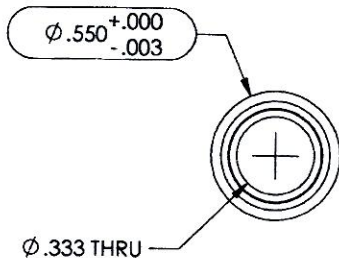


644.4122

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ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: CHECKER		2608 TEMPLE HEIGHTS DR.	
D. FAIRBORN		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: J. JOSEPH		PIVOT STEP ASSY	
CONTRACT NO.		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 ANGLES ±.5°		SIZE: 07MA26	DWG. NO. 644.4100
		REV. 1	SHEET 14 OF 16

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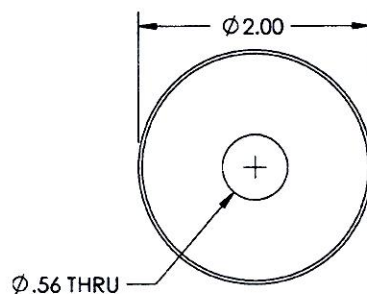
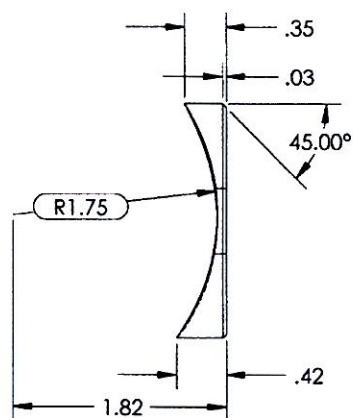


644.4123

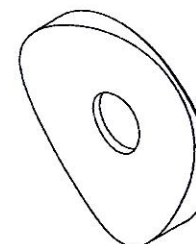
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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY D. PARICOTT		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL S. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SER. B	REV. F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.5°		CAGE CODE 07M16	DWG. NO. 644.4100
		SCALE: NONE	SHEET 15 OF 16

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ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: J. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL: J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		REV. F	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.010 ANGLES ±.5°		SIZE: B	CAGE CODE: 07MZ6
		DWG. NO. 644.4100	
		SCALE: NONE	SHEET 16 OF 16



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO34886

Purchase Order Date 1/9/2017

PO Print Date 1/11/2017

Page Number 1 of 5

Order From :

VC-ATG001

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

JAN 11 2017

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
	Line Comments		Promise Date				
	Delivery Comments						
1	154194 ✓	D4726-1 HANDLE REV. A	1/17/2017 ✓		12.00 ✓	\$2.70	\$32.40
			Yes				
			1/17/2017				
		FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK					
						Line Total:	\$32.40
2	154156 ✓	D4703-043 LOCK PIN REV. A	1/17/2017 ✓		18.00 ✓	\$2.70	\$48.60
			Yes				
			1/17/2017				
		FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK					
						Line Total:	\$48.60
3	154275 ✓	644.4123 EC145 BUSHING REV. F	1/17/2017 ✓		7.00 ✓	\$4.95	\$34.65
			Yes				
			1/17/2017				
		FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK					

DAS
38
1-89

2017-01-17

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

1/11/2017



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912817

Date: 17-Jan-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

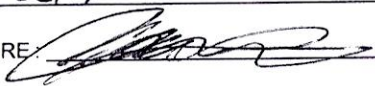
CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
7 ea	Part: 644.4115 Bracket Job: 20575	Rev: F PO: 34886	Line: 11
7 ea	Part: 644.4116 Bracket Job: 20576	Rev: F PO: 34886	Line: 12
7 ea	Part: 644.4123 bushing Job: 20568	Rev: F PO: 34886	Line: 3
DATE: 17/01/2017			
CERTIFIED SIGNATURE: 			
RECEIVER SIGNATURE: _____			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
CERTIFICATE OF CONFORMANCE			
A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.			
MADE IN CANADA.			

8017-01-17